

Remarks

In view of the above amendments and the following remarks, reconsideration and further examination are requested.

The specification and abstract have been reviewed and revised to make a number of editorial revisions. A substitute specification and abstract have been prepared and are submitted herewith. No new matter has been added.

A replacement Figure 14 is submitted herewith so as to change the label "SL1b" to "SL1c" in accordance with the description in the specification. No new matter has been added by this change.

Claims 2-6 have been objected to for using the phrase "following frequency fluctuations thereof." This objection is respectfully traversed. The objection states that this phrase is inconsistent with the specification. However, language similar to that used in the claims can be found in the specification at paragraphs [0066], [0067] and [0083]-[0085]. As a result, withdrawal of this objection to the claims is respectfully requested.

Claims 3-7 have been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Claims 2 and 3 have been amended so as to remove the recitation that the first automatic gain control amplification means amplifies the digital modulated signal. As a result, withdrawal of this rejection is respectfully requested.

Claims 1, 2 and 7 have been rejected under 35 U.S.C. §102(e) as being unpatentable over Maalej (US 6,545,532).

Claim 1 has been amended so as to include a limitation from claim 2 and the limitation has been removed from claim 2. Claim 7 has been cancelled without prejudice or disclaimer to the subject matter contained therein. Further, new claims 8-13 have been added.

In addition, claims 1-6 have been amended to make a number of editorial revisions. These revisions have been made to place the claims in better U.S. form. None of these amendments have been made to narrow the scope of protection of the claims, nor to address issues related to patentability and therefore, these amendments should not be construed as limiting the scope of equivalents of the claimed features offered by the Doctrine of Equivalents.

It is submitted that claim 1 is patentable over the reference relied upon in the above-mentioned rejection for the following reasons.

Claim 1 is patentable over Maalej, since claim 1 recites a digital broadcast receiving apparatus including, in part, second automatic gain control amplification means for amplifying a level of a first demodulated digital signal by following frequency fluctuations thereof to be a second predetermined level, and generating a second demodulated digital signal. Maalej fails to disclose or suggest the second automatic gain control amplification means as recited in claim 1.

Maalej discloses a QAM demodulator 99 that includes a first automatic gain (AGC) controller circuit 10, a second automatic gain (AGC) controller circuit 20, and a carrier recovery circuit 50. The second AGC controller circuit 20 includes a digital multiplier 210, a digital loop filter 220, and a power comparator 230. The carrier recovery circuit 50 includes a frequency offset detect circuit 525, a phase offset detect circuit 535 and a direct digital synthesizer 545. The frequency offset detect circuit 525 is used to readjust the tuner frequency in order to reduce filter degradation on the signal and thus improve the bit error rate. The phase offset detect circuit 535 is used for phase tracking in a situation where phase noise is located on the signal.

The second AGC controller circuit 20 receives signal components I and Q from the carrier recovery circuit 50 via a receive filter 40 which filters out adjacent channels. Therefore, the second AGC controller 20 only takes into account the received power of the signal. The second AGC controller circuit 20 is operable to compensate for attenuation of the first AGC controller circuit 10, which is caused by the presence of the adjacent channels, and adapts the signal level exactly to decision threshold levels of the signal. (See column 4, line 64 – column 7, line 38 and Figures 2, 4 and 5).

In the rejection, it is indicated that the second AGC controller circuit 20 and the carrier recovery circuit 50 in tandem correspond to the second automatic gain control amplification means of claim 1. However, it is apparent that the claimed second automatic gain control amplification means amplifies the first demodulated digital signal in accordance with frequency fluctuations of the first demodulated digital signal to be at a predetermined level. There is no disclosure or suggestion in Maalej that the second AGC controller circuit 20 and/or the carrier recovery circuit 50 use frequency fluctuations of the signal in this manner. As a result, claim 1 is patentable over Maalej.

As for claim 8, it is patentable over Maalej for reasons similar to those discussed above in support of claim 1. That is, claim 8, similar to claim 1, recites, in part, a second automatic gain controller operable to amplify a level of a first demodulated digital signal by following frequency

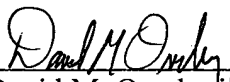
fluctuations thereof to be a second predetermined level, and generate a second demodulated digital signal, which feature is not disclosed or suggested by Maalej.

Because of the above-mentioned distinctions, it is believed clear that claims 1-6 and 8-13 are not anticipated by Maalej. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to modify Maalej or to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1-6 and 8-13. Therefore, it is submitted that claims 1-6 and 8-13 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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May 17, 2005